

Abstract

It is intended to provide novel and useful proteins which are expressed in the central nerve system and act on a calcitonin receptor, genes thereof and medicinal compositions containing the same. Peptides having at least the following amino acid sequence:

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| Ser-Cys-Asn-Thr-Ala-Thr-Cys-Met-Thr-His- | 10 |
| Arg-Leu-Val-Gly-Leu-Leu-Ser-Arg-Ser-Gly- | 20 |
| Ser-Met-Val-Arg-Ser-Asn-Leu-Leu-Pro-Thr- | 30 |
| Lys-Met-Gly-Phe-Lys-Val-Phe-Gly | 38; |

or an amino acid sequence derived from the amino acid sequence by deletion, substitution or addition of part of these amino acids and having the following characteristics (1) being expressed in the central nerve system, (2) strongly acting on a calcitonin receptor, and (3) promoting the cAMP-productivity of a cell, and, still preferably, (4) concentration-dependently incorporating sodium ion, (5) inhibiting the uptake of calcium ion, and (6) inhibiting cell proliferation; genes encoding these peptides; and medicinal compositions containing the same.